

REMARKS

In the Office Action dated January 14, 2005 in the file of this application, the only issues were a provisional double patenting rejection and a rejection to Claim 14. The provisional double patenting rejection should not stand in the way of allowance of this case since the co-pending case has not been allowed at this time.

Separately, the applicant has withdrawn Claim 14 above. That was the only claim rejected in the Office Action. Accordingly, all the claims are now in condition for allowance.

Wherefore, a formal allowance of this patent application is respectfully requested.

The applicant wishes to recapitulate one further item of information which was first discussed with the Examiner by recent telephone conversation. This item of information is added to the file to avoid any misunderstanding caused by the Declaration filed in this case by James Thomson on March 19, 2003. In the Thomson Declaration, Professor Thomson, the inventor of this application, had stated that it was his belief that any fibroblast growth factor (FGF) would work for the purposes described in this patent application to avoid the use of serum, in substitution for the disclosed embodiment of basic FGF, or FGF2. That statement is still believed accurate. However, additional information has been developed since that time that provides further elaboration on this point, and the applicant has decided to disclose additional information to this Examiner to avoid any misunderstanding.

In the present understanding of the applicant here, the addition of FGF to a medium for stem cell growth and proliferation has at least two different effects, the effects being perceived at varying levels of FGF addition. At levels in the range of those described in the embodiments of this patent application, e.g. about 4 ng/ml, FGF is sufficient to avoid the need for adding serum of any kind to the stem cell culture medium. As stated in the earlier Thomson Declaration, and as the applicant still believes to be true, any FGF variant may be used for this purpose with successful results. This statement has been tested by additional laboratory experimentation and is believed accurate.

However, more recently the applicant here has learned that at higher concentrations of FGF, e.g. about 100 ng/ml, FGF may also make the stem cell culture entirely independent of the need for feeder cells or conditioned medium (medium conditioned by culture of fibroblasts). This effect caused by an FGF does not appear to be enabled by all FGF variants at 100ng/ml. In other words, some FGFs, such as bFGF or FGF2, are effective to cause this effect, while other FGF variants seem to not be able to cause this effect, although we have not entirely ruled out that at higher concentrations they could be effective.

Again, the applicant believes here that nothing stated in the file of this application is incorrect and that the Thomson Declaration from March of 2003 is still accurate. Nevertheless, the applicant wishes to make the Examiner aware of this new technical information so as to err on the side of caution in disclosing relevant facts to the Examiner.

The correction to claim 8 above is to correct an unrelated error discovered during review of the claims.

Wherefore, a formal notice of allowance of this patent application is respectfully requested.

Respectfully submitted,



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